

ABSTRACT OF THE DISCLOSURE

A method of managing oil fields include installing oil field sensors in a conventional manner, coupling the sensors to a local CPU having memory, programming the CPU for data collection and data analysis, providing a central web server coupled to the Internet, and coupling local oil field CPUs to the web server. Human experts are granted access oil field data in real time via the Internet by connecting to the web server and requesting data for a particular oil field. The local CPUs provide different levels of data to the web server. The web server provides the option to view raw data, partially analyzed data, or fully analyzed data. The local CPUs are programmed with parameters for analyzing the data and automatically determining the presence of anomalies. Upon detecting the occurrence of an anomaly, the local CPUs are programmed to notify one or more human experts by email, pager, telephone, etc. If no human expert responds to the notification within a programmed period of time, the local CPU automatically takes a programmed corrective action. According to a presently preferred embodiment, a "correlation check" is provided which utilizes signal processing methods to analyze data without utilizing an underlying model of the reservoir.